

Year 2 Annual Report
Massachusetts Small MS4 General Permit
New Permittees
Reporting Period: July 1, 2019-June 30, 2020

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

*Check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.*

Annual Requirements

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice Requirements
- Kept records relating to the permit available for 5 years and made available to the public
- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information for your self-assessment, and/or if any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted? Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

- Yes
 No

If yes, describe below, including any relevant impairments or TMDLs:

Part IV: Minimum Control Measures

Part IV includes some of the metrics that will be required in upcoming annual reports. For this annual report, these metrics are optional for new permittees; please fill out any of the metrics below that you have started within this reporting period. Then, proceed to Part V.

MCM1: Public Education

Number of educational messages completed **during this reporting period:**

*Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.*

BMP: #1. Think Blue Connecticut River Website

Message Description and Distribution Method:

PE-2 The University has joined the Connecticut River Storm Water Committee in order to be able to reach out to University staff, students, and contractors as well as our broader community. The Think Blue Connecticut River website is at the core of all regional messaging about stormwater. The website at www.thinkblueconnecticutriver.org does the following:

- Covers major areas of messaging about reducing polluted stormwater flows, including lawn and yard care, pet waste management, car care, controlling soil erosion, soaking up the rain, and septic system care
- Addresses the key 4 audiences plus educators
- Serves as the “landing place” for information on nearly all social media messaging

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf> for more information on the website and information for public education.

This platform is advantageous for our adjacent MS4 partners who visit our campus, and our students, faculty and staff who can take this information back home

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

now completed is most central to all messaging in the region.

BMP: #2. Covid-19 litter

Message Description and Distribution Method:

Connecticut River Stormwater Committee members noted at the April 6, 2020 meeting that all are seeing a tremendous increase in three types of waste likely attributable to Covid-19 and recent stay at home orders. The waste includes: protective nitrile gloves and alcohol nip bottles strewn on the ground in many places, and increased pet waste either unbagged, but even bagged and left in place. The heightened concern of disease transmission likely plays a part in the uptick in this type of litter. As such, PVPC staff worked on a press release and boosted Facebook post with the key messaging being, “storm flows carry this waste to the river, and we don’t want to be swimming in it come summer.”

The press release yielded a high visibility evening news segment on Channel 22/WWLP, on April 9

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Residents, and business/institutional/commercial

Responsible Department/Parties: Connecticut River Stormwater Committee

Measurable Goal(s):

PVPC April 10 Facebook post: 3,450 impressions, 1,234 engagements, and 19 likes and 124 shares
WWLP, Channel 22 news story views and blog post views could not be obtained, but these numbers are likely in the thousands or tens of thousands.

Message Date(s): April 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This Covid-19 related litter messaging was not mentioned in the NOI and SWMP, but was seen as important addition and completed as part of Year 2 messaging in the region.

BMP: 3. Cigarette butts - residents

Message Description and Distribution Method:

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Materials and messaging for this campaign to reduce cigarette butt litter were developed within the reporting period. Due to general sense that messaging would get lost in the mix given far greater public concern with the Covid-19 pandemic, actual launch of campaign messaging was postponed from Year 2 to Year 3. The campaign includes:

- Image of baby bird with cigarette butt in its mouth with message
- Large decals (2x3 feet) for public works vehicles throughout the region
- Web page with additional information on cigarette butt litter and link to informational video from Canadian public broadcasting
- Press release to local media

Boosted FB post to be shared with MA Audubon and the Connecticut River Conservancy and that links to resources on Think Blue Connecticut River website

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

NA for this reporting period – postponed to Year 3

Message Date(s): NA for this reporting period

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Postponed to Year 3 and rather than messaging through use of PVTA bus panels, decided to message with large decals on public works vehicles throughout the region.

BMP: 4. Dumpster waste and avoiding contaminated flows message - businesses

Message Description and Distribution Method:

Materials and messaging for this campaign on dumpster waste and avoiding contaminated flows were developed within the reporting period. Due to general sense that messaging would get lost in the mix given far greater public concern with the Covid-19 pandemic, actual launch of campaign messaging was postponed from Year 2 to Year 3. The campaign includes:

- Presentation that was to be given at March 12 Western Mass Health Officers Association/MassDEP annual spring seminar focused on environmental health
- Flyer to inform Boards of Health on proactive regulatory and educational steps to curb stormwater pollution from dumpsters
- Flyer for Boards of Health for use as part of routine interactions with retail complexes, restaurants/food establishments, and apartment complexes
- Check list for Boards of Health (developed by Town of Palmer Conservation Agent) to use when inspecting restaurants and looking at dumpsters and oil storage

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Business, institutions, and commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

NA for this reporting period – postponed to Year 3

Message Date(s): NA for this reporting period

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Aside from postponing message from Year 2 to Year 3, we learned in the process of developing the campaign that distribution of flyers directly to dumpster companies to provide to customers was not going to be a fruitful strategy. Better to work with Boards of Health to inform them and then get them to distribute the information to dumpster companies (who are allowed/permitted by boards to operate in the community) and to businesses when health agents they are doing routine inspections. The education and outreach effort became two pronged and now includes an additional flyer specifically for Boards of Health.

Given Covid-19 and the demands on Boards of Health during this time, there is agreement among committee members that the best approach will be two pronged for Year 3:

Post information on Think Blue Connecticut River website with the two PDF documents/flyers on dumpsters, along with a checklist for Boards of Health to use when inspecting restaurants and looking at dumpsters and oil storage.

Prepare article for MA Health Officers Association Executive Director to announce resources about dumpsters to memberships in the Western MA Public Health Association and the MA Environmental Health Association

BMP: 5. New MS4 development standards and erosion and sediment control - developers

Message Description and Distribution Method:

The plan was to conduct a workshop at the regional Western Massachusetts Development Conference. Leading up to the conference— scheduled for May and now postponed to October—conference organizers, however, indicated that a workshop on this topic does not fit with their programming. As an alternative, they offered the ability to have a Think Blue Connecticut River table where we could talk with developers and hand out information. The conference is now planned to be held virtually on October 21. Organizers have indicated through communications with PVPC that, “We are using a very cool 3d platform that will provide multiple opportunities for vendors to feature chats, content, videos and other digital material.”

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Given the tremendous opportunity provided by this conference, the Connecticut River Stormwater Committee, is moving this messaging to Year 3. Emphasis will likely be on erosion and sediment control and will depend

in part on status of ongoing work between MassDEP and EPA to better align MS4 permit and Wetlands Protection Act.

BMP: 6. Erosion and sediment control - developers

Message Description and Distribution Method:

To get some messaging out to developers for Year 2, municipal members agreed that it makes good sense to distribute a letter on municipal letterhead and an EPA brochure on erosion and sediment control to drainlayers operating within their communities. This was a strategy used by Tewksbury Public Works Director Arthur Marcos, kindly shared his draft letter language. PVPC staff developed a contact list for drain layers operating in the region, updated Mr. Marcos' letter and sent those materials along with the EPA brochure on erosion and sediment control for member use.

Some 72 drain layers have been identified in the region. Only East Longmeadow made use of the mailing this year, but other members have indicated they may follow through with this mailing to those operating within their respective jurisdictions in Year 3.

Targeted Audience: Developers and drainlayers specifically

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Letters and brochure sent to nine drainlayers in the region that are operating specifically in East Longmeadow.

Message Date(s): Letters sent spring of 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This was an additional message that some communities chose to do, but was not originally part of the Connecticut River Stormwater Committee NOI/SWMP

BMP: 7. Fleet maintenance to avoid spills and leaks – industrial facilities

Message Description and Distribution Method:

This message is aimed at ensuring that industrial operators with vehicle fleets take care to manage vehicles so as to avoid spills and leaks. The press release to be distributed through the region, as well as the flyer to be distributed to industries in the region are based on the Think Blue Massachusetts flyer developed by Water Words that Work. After several attempts to acquire MSGP permittees through various on-line sources, PVPC obtained the list of MSGP permittees in Massachusetts directly from EPA Region 1 staff. The list shows permittees in every Stormwater Committee community except Southampton and Longmeadow.

Targeted Audience: Industrial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

NA for this reporting period – postponed to Year 3

Message Date(s): NA for this reporting period

Message Completed for: Appendix F Requirements Appendix H Requirements Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Postponed to Year 3 given likelihood of message getting lost in the mix during all the information around Covid-19 best practices and the struggle for industrial facilities to continue operations during the pandemic.

BMP: Proper disposal of leaf litter - residents

Message Description and Distribution Method:

PE-09 Messaging for this campaign was adapted from a series of four Be a Leaf Hero social media posts developed by the Cape Cod Commission and customized for the Connecticut River Stormwater Committee. The posts provide a series of tips and all tips contained a link to a more in-depth document posted on the Think Blue Connecticut River website. The in-depth document promotes better practices with leaf litter and seeks to build understanding about potential contamination of stormwater with leaf litter.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Boosted Facebook posts that reached a total of 6,903 people, 353 of whom clicked to the link provided for more information.

Article in PVPC's Regional Reporter that received views from 883 people, 29 of whom clicked to the link provided for more information.

Message Date(s): Facebook posts ran mid-October through mid-November; article in PVPC's Regional Reporter October and November issues

Message Completed for: Appendix F Requirements Appendix H Requirements Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Proposal had been for one social media post and press release. Given the cohesion of these social media messages as a whole, the Connecticut River Stormwater Committee decided to run the full series and instead of a media release, developed a one-page document on best practices to which all posts could link.

BMP: 9. Importance of soil test, proper use of fertilizers, disposal of grass clippings - residents

Message Description and Distribution Method:

PE-09 Social media post, using idea of keeping lawns safe for families. The link provided in the social media post connects to the Think Blue Connecticut River web page on lawn and yard care, which lays out important best practices and links to useful resources, including a video by Paul Tukey, organic lawn care celebrity, as well as guides to popular lawn care chemicals and their hazards.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Boosted Facebook post reached 5,922 people, 110 of whom clicked to the website link for more information. Analytics indicate that the average time spent by visitors on that resource page was nearly 4 minutes.

Article in PVPC's Regional Reporter that received views from 431 people, 15 of whom clicked to the link provided for more information.

Message Date(s): Facebook post on May 21, 2020; article in PVPC's Regional Reporter May issue

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Proposed work had included creating a brochure. Instead, work entailed improving the Think Blue Connecticut River web page on lawn care so that information and resources are all more readily available during Covid-19.

BMP: 10. Proper management of pet waste - residents

Message Description and Distribution Method:

PE-09 A series of messages were issued this year to drive people to the Think Blue Connecticut River website resources on pet waste, particularly a pledge to pick up pet waste. These messages included multiple Facebook posts, pet waste instructions added to the website, and an electronic form to pledge pet waste pick up. Some communities also did electronic and direct mail distribution of post cards to dog owners. An additional Facebook post was added during "stay at home orders" for Covid-19 given the amount of pet waste Connecticut River Stormwater Committee members were seeing at parks, along streets, and in storm drains. All of this effort was further boosted for summer with a banner pet waste message on MassLive targeting dog owners specifically.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

The boosted Facebook posts reached 15,552 people who followed through with 406 clicks. The articles placed in 6 issues of PVPC's Regional Reporter were viewed by 2,740 people, 48 of whom clicked to a link for more information. A MassLive banner provided 175,015 impressions with 296 clicks to more information.

During Year 2, Think Blue Connecticut River pet waste page on the website had 730 page views with the analytics indicating that the average time spent by visitors on that resource page was 1 minute and 33 seconds. Of the 189 visitors who proceeded to the pick up pet waste pledge, 70% or 122 people made the commitment to pick up pet waste.

Message Date(s):

- For summer 2019 message, issued posters and Facebook post on July 30, 2019 (pledge was not yet set up); also placed article in PVPC's Regional Reporter (summer and September).
- Time of licensing 2020, Facebook posts on January 31, February 3, February 6, and boosted post by zip code on February 10; also placed article in PVPC's Regional Reporter (February, March, and April).
- Electronic and direct mail distribution of post cards during February and March
- For Covid-19 messaging, Facebook post boosted by zip code on April 8
- For summer 2020 message, MassLive Banner ad from June 25 through July 24; also placed article in PVPC's Regional Reporter (summer)

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

The NOI/SWMP PE-09 indicated pet waste messaging only in summer months as PVPC understood that messaging under the Appendixes could be combined. EPA has indicated that additional messaging to dog owners "at time of licensing" is required. Messaging at time of licensing Connecticut River Stormwater Committee Annual Report page 15 has been added in Year 2, along with additional messaging on pet waste during "stay at home" orders with the pandemic given the increased visibility of associated problems.

If yes, describe why the change was made: To provide additional messaging.

BMP: 11. Proper septic system care - residents

Message Description and Distribution Method:

The Think Blue Connecticut River website contains a great resource page on septic system care that includes an infographic on maintenance. To promote the resources on this page for homeowners, the Connecticut River Stormwater Committee did a boosted Facebook post timed to coincide with EPA's Septic Smart Week in September.

PVPC also prepared a draft letter for distribution by Boards of Health to septic system owners. Several communities used this letter in Year 2, while others are planning to use in Year 3. It is important to note that among Connecticut River Stormwater Committee there are several member communities that are highly urbanized with no properties presumed to be using septic systems for sanitary waste disposal.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Boosted Facebook posts reached 1,586 people, 176 of whom clicked to the website link for more information. Analytics on the Think Blue Connecticut River web page on septic system care indicate that the average time spent by visitors on that resource page was just over 2 minutes.

Message Date(s): September 16, 2019

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

The NOI/SWMP indicated septic system messaging would be done in Year 3 only as MS4 permit language in Appendix H was not entirely clear on the timing of this message. EPA has since indicated that septic system messaging must occur each year and the Connecticut River Stormwater Committee has adjusted accordingly.

BMP: 12. Proper disposal of leaf litter - businesses

Message Description and Distribution Method:

PE-09 Mailing to landscapers in the region that promotes best practices and identifies locations for proper disposal of leaf litter. Best practices noted in letter are:

- Keep leaves off of driveways and roadways where they can easily wash into storm drains and contribute to higher nutrient flows during the fall season.
- Use a mulching mower. By mulching the leaves into the lawn, you avoid having to rake/blow and bag and you offer a way to manage autumn leaves while providing your client with free fertilizer. Mulched leaves put nutrients back into the ground and reduce the overall need for more soluble fertilizer products, which present greater problems for our local waterways.
- Alternatively, if your client has an existing compost pile, you can recommend that they consider allowing you to add leaves to the pile. Leaves provide a critically important element (carbon) to the composting process, making for a more soil enriching product to be used in the next growing season. Be sure compost piles are located away from streams, lakes, or storm drains as these decomposing materials and nutrients could easily leach to these water resources.

Targeted Audience: Businesses/institutions/commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Mailing to 120 professional land care companies operating in Stormwater Committee member municipalities

Message Date(s): November 4, 2019

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: 13. Importance of soil test, proper use of fertilizers, disposal of grass clippings - businesses

Message Description and Distribution Method:

PE-09 In-person workshop for land care companies in the region on the need for better practices based on water quality considerations, new state regulations on use of nutrients, and best practices. Updated mailing list of professional land care companies operating in Stormwater Committee member municipalities with help from regional professional association.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Business/institutions/commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Workshop invitation mailing to 130 professional land care companies operating in Stormwater Committee member municipalities

Message Date(s): November 4, 2019

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This in-person workshop had been planned for April 1 and an invitation issued to landscapers in the region. With the emergence of Covid19 the workshop was going to be moved to the Zoom virtual meeting platform, but there was little interest expressed from landscapers. Mary Owen of UMass Extension and Hotze Wijnja of MassDAR recommended cancellation of the event as the industry was in upheaval with the pandemic. Also, the audience here was intended to be large institutions with lawns, but some difficulty in identifying these places in practice. For year 3, plan to conduct workshop and invite both these audiences.

BMP: 14. Proper management of goose waste - businesses

Message Description and Distribution Method:

Letter to property owners identified as having goose problems, with specific strategies and resources. Chief recommended strategies are signage to discourage people feeding geese and managing "residential" goose populations, by undertaking a program to addle eggs and modify landscapes. Contact information for USDA Wildlife Services in Amherst, was offered as a source of technical assistance and operational management.

Also included in the letter were two illustrations of landscaping along water's edge to provide idea of modifications that could help to reduce direct stormwater flows and creates barriers for goose movement from water to foraging area.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Businesses/institutions/commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Letters sent to owners of 25 properties with likely ongoing residential goose problems

Message Date(s): : October 21, 2019

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Message initially planned for Year 1, but there was no existing recommended practice in place for landowners with goose problems. PVPC conferred with both MassWildlife and USDA Wildlife officials to devise a program of effective strategies

BMP: 15. Proper management of pet waste - businesses

Message Description and Distribution Method:

PE-09 Development and distribution of resources for businesses to address improper pet waste disposal on their properties. Resources include a designed sign template, cost estimates for sign production from vendors in the region, and social media material for use in posts by businesses. To promote availability of resources, PVPC reached out to the 11 chambers of commerce operating in the region and provided an article to run in member newsletters. All pet waste resources are made available through the businesses page on the Think Blue Connecticut River website.

See: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/09/CT-River-SWC-Annual-Report-Narrative-MCM-1-.pdf>

Targeted Audience: Businesses/institutions/commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Reporting back from Chambers was uneven, but hope is to smooth these lines of communications as this seems good way to reach this audience. Based on Chambers reporting back, newsletters with Poop Fairy article went to 3,295 businesses in the region.

Message Date(s): Various through June and July, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Had proposed to send letter describing resources directly to property owners with likely pet waste problems. Identifying these properties, however, was not practicable. Outreach through chambers of commerce seemed a more sound approach when it came time to issuing this message.

BMP: 16. Fowl Water messaging through state-wide campaign

Message Description and Distribution Method:

On behalf of the members of the Connecticut River Stormwater Committee, Think Blue Massachusetts ran two educational advertising campaigns using the 30-second video entitled, "Fowl Water." The "Fowl Water" advertisement helps viewers visualize how stormwater runoff carrying motor oil, pet waste, and trash pollutes local waterways. One campaign ran early in Year 2, from July 1 to July 12, 2019, and the other ran from May 16 to June 5, 2020. Each campaign entailed sponsored video on Facebook and Instagram and pre-roll advertisements on YouTube. See the video at: <http://bit.ly/tbm-fowl-water>

Targeted Audience: Residents and businesses/institutions/commercial facilities

Responsible Department/Parties: Think Blue Massachusetts and Water Words that Work

Measurable Goal(s):

Water Words that Work reports that within the Connecticut River Stormwater Committee region: 1st campaign resulted in 1,009,224 Facebook and Instagram and 318,970 You Tube ad impressions; 2nd campaign resulted in 708,781 Facebook and Instagram and 619,562 You Tube ad impressions

Message Date(s): July 1 to July 12, 2019
May 16 to June 5, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This message is a welcome addition to our program for Year 2 and will be part of the region's SWMP update.

BMP: 17 PE-4 Hold training classes for Physical Plant

Message Description and Distribution Method:

PE-4 Training classes for SPCC, Storm Water Pollution Prevention, Emergency Response Procedures

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Environment Department

Measurable Goal(s):

Various Training Classes Held for Physical Plant, Transit and Fleet Services (34 in person trainings)

Message Date(s): trainings held between 7/1/19 through 6/30/20

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: 18 PE-5 Preconstruction classes for contractors

Message Description and Distribution Method:

Held preconstruction classes for contractors which includes a section on stormwater management, SPCC, chemical Storage and other environmental issues

Targeted Audience: Developers (construction)

Responsible Department/Parties: Environment Department

Measurable Goal(s):

36 classes held with 197 people trained

Message Date(s): 7/1/19 through 6/30/20

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period:**

PI-1 Provided the opportunity for the public to review and comment on the SWMP as posted on our website
 PI-3 Website content for handling of hazardous, universal and solid waste is posted
 PI-4 We handled 6,594 hazardous waste pickup requests from the UMass community

We were planning on utilizing Earth Day for Public Education and enticement for opportunities for participation. With the outbreak of Covid all events were canceled, students were sent home and there were severe reductions of faculty and staff.

Faculty and students are involved in many storm water opportunities including research, landscape designs, and investigation work.

Was this opportunity different than what was proposed in your NOI? Yes No

Describe any other public involvement or participation opportunities conducted **during this reporting period:**

Zoom Meeting with representatives from the Town of Amherst, MS4 Team, Physical Plant Director, and Civil and Environmental Faculty.

Agenda items included

- Status of Storm Water Management Plans (UMass; Amherst; Status of Mapping)
- Illicit Discharge Detection and Elimination (IDDE) - Status of dry and wet weather screening; Use of students to help with monitoring and testing
- Phosphorus and Nitrogen Reduction Calculations and BMPs (Lake Warner has a TMDL)
 - o Mill River/Tan Brook potential BMPs at Fearing street
 - o Phosphorus reduction for Tan Brook utilizing a retention pond (possible locations North of CHP or swale at playing field)
- Joint Public Education and Outreach and Public Participation

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

- This SSO section is NOT applicable because we DO NOT have sanitary sewer

*Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period.***

Number of SSOs identified:

Number of SSOs removed:

*Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified **since the effective date of the permit (July 1, 2018).***

Total number of SSOs identified:

Total number of SSOs removed:

MS4 System Mapping

Below, check all that apply.

The following elements of the Phase I map have been completed:

- Outfalls and receiving waters
- Open channel conveyances
- Interconnections
- Municipally-owned stormwater treatment structures
- Waterbodies identified by name and indication of all use impairments
- Initial catchment delineations

Describe any additional progress you made on your map during this reporting period or provide additional status information regarding your map:

- We have opened and investigated 2050 drainage structures and identified and established connectivity of 4300 drain lines between those 2050 structures, we have another 1550 structures located and mapped on our utility base file that have not been investigated but we do have connectivity between those 1550 structures based on record documents.
- We have 90 interior and exterior outfalls and receiving culverts mapped, included in these 90 culverts we have identified 23 locations where drainage exits University property. 21 locations fall under the MS4 regulations with the remaining 2 outfalls covered under the Central Heating Plant MSGP.
- We maintain a Drainage Assets Base File with approximately 70 treatment manholes and catch basins identified along with 30 bio treatment areas and 20 engineered treatment structures.

Screening of Outfalls/Interconnections

*If conducted, please submit any outfall monitoring results **from this reporting period**. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses.*

- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

*Below, report on the number of outfalls/interconnections screened **during this reporting period**.*

Number of outfalls screened:

Catchment Investigations

*If conducted, please submit all data collected **during this reporting period** as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.*

- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed **during this reporting period**.*

Number of catchment investigations completed this reporting period:

*Below, report on the percent of catchments investigated **to date**.*

Percent of total catchments investigated:

Optional: Provide any additional information for clarity regarding the catchment investigations below:

We are currently working on the IDDE Program for years 3 and 4.

- For year 3, we are working on completing the elements of the Phase 1 mapping and continue to work on elements of the Phase 2 (b) mapping requirements
- For year 3 we are writing the IDDE Program Procedures to include dry weather screening procedures.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period**.*

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

*Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018)**.*

Total number of illicit discharges identified:

Total number of illicit discharges removed:

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

Employee Training

Describe the frequency and type of employee training if conducted **during this reporting period**:

MCM4: Construction Site Stormwater Runoff Control

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed **during this reporting period.***

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance Development

Describe the status of the post-construction ordinance required to be complete by year 3 of the permit term:

Requirements can be found under Section 018113 Sustainable Design Requirements
UMass has established LEED Certification guidelines with each new building requiring at a minimum LEED silver where key stormwater LEED points can be found under "Sustainable Sites".

As-built Drawings

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites:

Requirements can be found under Section 017700 Contract Close out

1.5 AS-BUILT DRAWINGS

I. At the completion of the contract, each Subcontractor shall submit to the General Contractor a complete set of his respective As-built Drawings indicating all changes. After checking the above drawings, the General Contractor shall certify in writing on the title sheet of the drawings that they are complete and correct and shall submit the As-built Drawings to the Designer.

1. As-Built Drawings shall be submitted electronically to the Designer, in a format which can be added to the complete plans as constructed.

J. The Designer shall review the drawings and shall verify by letter to the UMA Project Manager that the work is accurate. The Designer shall incorporate all changes on the original drawings; thus creating Record Drawings. The Designer shall submit to the UMA Project Manager, electronic files in Autocad 2000 (or later version) format with two (2) sets of prints to be used for the final inspection of the project. Inaccuracies in As-built Drawings, as determined by the Designer and the UMA Project Manager, may be grounds for postponement of the final inspection or delay the processing of final payment until such inaccuracies are corrected by the General Contractor.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment including any planned or completed changes to local regulations and guidelines:

Green Infrastructure Report

Describe the status of the green infrastructure report, including the findings and progress towards making the practice allowable:

Building Design:

UMass has established LEED Certification guidelines with each new building requiring at a minimum LEED silver where key stormwater LEED points can be found under "Sustainable Sites". One of the University's 6 key overarching principals is to Control Stormwater Runoff.

See https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1006&context=cp_reportsplans

Landscape Design:

Creation of low mow, no mow, and meadows in the campus landscape, which include a balanced blend of fine fescue grasses in no mow combines each variety's individual characteristics to create a turf that:

- Grow to form a dense sod
- Thrive in full sun to partial shade
- Require little if any fertilization
- Need minimal watering (only during extended dry periods)
- Resist most turf grasses diseases
- Biologically reduce weed growth
- Reduce lawn maintenance dramatically
- Serve as an ecological alternative to traditional high maintenance lawns

Retrofit Properties Inventory

Describe the status of the inventory of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

MCM6: Good Housekeeping**Catch Basin Cleaning**

Describe the status of the catch basin cleaning optimization plan:

Storm drains are inspected twice a year, and cleaned out as required. Spoils are placed in temporary storage wi

If complete, attach the catch basin cleaning optimization plan or the schedule to gather information to develop the optimization plan:

- The catch basin cleaning optimization plan or schedule is attached to the email submission
- The catch basin cleaning optimization plan or schedule can be found at the following website:

Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins **during this reporting period**.

Number of catch basins inspected:

Number of catch basins cleaned:

Total volume or mass of material removed from all catch basins:

Below, report on the total number of catch basins in the MS4 system, if known.

Total number of catch basins:

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

Street Sweeping

Describe the status of the written procedures for sweeping streets and municipal-owned lots:

UMass Landscaping Operates a Street Sweeper
 All University owned roads are swept in the spring with additional sweeping of streets and parking lots performed as needed.
 Street sweepings are placed in temporary storage off of Tilson Farms Rd and then taken off site for use as landfill cover
 Amount collected is maintained in a log

Report on street sweeping completed during the reporting period using one of the three metrics below.

Number of miles cleaned:

Volume of material removed:

Weight of material removed:

If applicable:

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

O&M Procedures and Inventory of Permittee-Owned Properties

Below, check all that apply.

The following permittee-owned properties have been inventoried:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

The following O&M procedures for permittee-owned properties have been completed:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

Winter Road Maintenance

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

Landscape Services uses a brine solution of rock salt and water to pretreat hardscape surfaces ahead of a storm (protects against ice formation, but uses only one quarter of the salt normally used.)
Salt is stored in the Salt Storage Building off Tilson Farm Road

Stormwater Pollution Prevention Plan (SWPPP)

Describe the status of any SWPPP for permittee-owned or operated facilities including maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater:

UMass is in the process of expanding the Central Heating Plant SWPPP to include the campus

Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period.

Number of site inspections completed:

Describe any corrective actions taken at a facility with a SWPPP:

O&M Procedures for Stormwater Treatment Structures

Describe the status of the written procedure for stormwater treatment structure maintenance:

Structure preventive maintenance is in the University's Workplace Management System (Tririga)

Part V: Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

COVID-19 Impacts

Optional: If any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 3 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Complete IDDE ordinance
- Complete Construction/ Erosion and Sediment Control (ESC) ordinance
- Develop written procedures for site inspections and enforcement of sediment and erosion control measures
- Develop written procedures for site plan review

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Continue public education and outreach program

Provide any additional details on activities planned for permit year 3 below:

Part VI: Certification of Small MS4 Annual Report 2020

40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Title:

Signature: Date:

Digitally signed by Theresa Wolejko
Date: 2020.09.28 12:18:22 -04'00'

[Signatory may be a duly authorized representative]

Note: When prompted during signing, save the document under a new file name.

Annual Report Submission

Please submit the form electronically via email to both EPA and MassDEP by clicking on one of the links below or using the email addresses listed below. Please ensure that all required attachments are included in the email and not attached to this PDF.

EPA: stormwater.reports@epa.gov

MassDEP: laura.schifman@mass.gov

Paper Signature:

If you did not sign electronically above, you can print the signature page by clicking the button below.

Optional: If you did not sign electronically above, you may lock the form by clicking the "Lock Form" button below which will prompt you to save the locked version of the form. Save this locked version under a new file name.